

**REMARKS/ARGUMENTS**

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-20 are presently pending in this application, Claims 1, 3, 6, 11, 15 and 18 having been amended by the present amendment.

In the outstanding Office Action, Claims 1-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Pitcher, Jr. (U.S. Patent 4,417,908) in view of EP 1 184 066 (hereinafter "EP '066") and Fukutani et al. (U.S. Patent 4,632,683).

Claims 1, 3, 6, 11, 15 and 18 have been amended herein. These amendments find support in the specification, claims and/or drawings as originally filed, for example, the specification, page 12, lines 3-32, page 24, lines 27-35, as well as Figures 1-4, and no new matter is believed to be added thereby. If, however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work in a joint effort to derive mutually agreeable claim language.

Before addressing the rejection based the cited references, a brief review of Claim 1 as currently amended is believed to be helpful. Claim 1 is directed to a columnar honeycomb structural body and recites "a ceramic block comprising a plurality of porous ceramic members and a sealing material layer formed between the porous ceramic members, each of the porous ceramic members having a plurality of through holes and a wall portion interposed between the through holes, the through holes extending in parallel with one another in a length direction of the ceramic block, wherein the through holes have one of ends sealed such that an opening area of one end face of the through holes is larger than an opening area of the other end face of the through holes, the plurality of through holes includes a plurality of large through holes sealed on the one end face and a plurality of small through holes sealed on the other end face, each of the large through holes has an octagonal cross-section shape and each

of the small through holes has a quadrangle cross-section shape, the large through holes have cross-section areas which are larger than cross-section areas of the small through holes, the large through holes and the small through holes are positioned such that a distance between centers of gravity of the cross-section areas of adjacent ones of the large through holes is set to be equal to a distance between centers of gravity of the cross-section areas of adjacent ones of the small through holes, the opening area of the one end face of the through holes and the opening area of the other end face of the through holes have a ratio in a range between 1.01 to 6, the wall portion has a plurality of micro pores having an average pore diameter in a range from 5 to 30  $\mu\text{m}$ , the micro pores include large micro pores having a pore diameter two or more times larger than the average pore diameter, and the large micro pores have a capacity of which a rate is set to 30% or less of a capacity of the micro pores in entirety.”

It is respectfully submitted that neither Pitcher, Jr. nor EP ‘066 teaches or suggest “*a ceramic block comprising a plurality of porous ceramic members and a sealing material layer formed between the porous ceramic members, each of the porous ceramic members having a plurality of through holes and a wall portion interposed between the through holes, the through holes extending in parallel with one another in a length direction of the ceramic block, wherein ... each of the large through holes has an octagonal cross-section shape and each of the small through holes has a quadrangle cross-section shape ...*, the wall portion has a plurality of micro pores having an average pore diameter in a range from 5 to 30  $\mu\text{m}$ , the micro pores include large micro pores having a pore diameter two or more times larger than the average pore diameter, and the large micro pores have a capacity of which a rate is set to 30% or less of a capacity of the micro pores in entirety” (emphasis added in italic).

Specifically, Pitcher, Jr. shows various structures in which the opening areas on the inlet and outlet sides are sealed differently, but Pitcher, Jr. does not disclose or suggest a porous ceramic structure having large through holes with an octagonal cross-section shape

and small through holes with a quadrangle cross-section shape. Likewise, EP '066 and Fukutani et al. merely show through holes having only a square cross-section and equally sized and thus fail to disclose or suggest a porous ceramic structure having large through holes with an octagonal cross-section shape and small through holes with a quadrangle cross-section shape. Accordingly, the honeycomb structures described in EP '066 and Fukutani et al. would have the opening areas on the inlet and outlet sides which are set equal.

Based on the foregoing discussions, Pitcher, Jr., EP '066 and Fukutani et al. fail to disclose the porous ceramic member structure as recited in amended Claim 1, and their combined teachings are not believed to render the honeycomb structural body of Claim 1 obvious.

Applicants also wish to point out that Claim 3 recites that “the wall portion includes a plurality of partition wall portions each of which is interposed between two adjacent large through holes of the large through holes such that each of the partition wall portions is defined by two adjacent sides of the two adjacent large through holes.” It is respectfully submitted that Pitcher, Jr. fails to show a partition wall portion interposed between adjacent large through holes, *i.e.*, adjacent large through holes share a common wall portion partitioning them and defined by their two adjacent sides as shown in Figures 4(a)-(d). Similarly, both EP '066 and Fukutani et al. do not show partition wall portions interposed between adjacent large through holes as shown in Figures 4(a)-(d). Thus, the structure recited in Claim 3 is further distinguishable from Pitcher, Jr., EP '066 and Fukutani et al.

For the foregoing reasons, Claim 1 is believed to be allowable. Furthermore, since Claims 2-20 depend directly or indirectly from Claim 1, substantially the same arguments set forth above also apply to these dependent claims. Hence, Claims 2-20 are believed to be allowable as well.

In view of the discussions presented above, Applicants respectfully submit that the present application is in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Akihiro Yamazaki', is written over a horizontal line.

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